



Variable Optical Attenuator in rack system

OVERVIEW

The **sercalo** rs series integrate all passive optical functions such as switches and variable optical attenuators for demanding applications in fiber optic instrumentation or communication.

The optical connections are set by a MEMS based switch network, where micromachined silicon mirrors redirect light to the selected ports or simply set a desired attenuation level. The use of MEMS technology offers solid state reliability together with long term stability and robustness for stable operation.

Different interface options are available. With the ethernet interface, the instrument can be controlled over an internet connection.

APPLICATIONS

- Power level control
- Fiber span simulation
- Fiber Optic Test and Measurement

FEATURES

- reliable
- low insertion loss
- single or multimode
- CE compliant

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DESCRIPTION

The variable optical attenuator instrument is built using sercalo's Telcordia qualified MEMS technology, which achieves superior reliability when compared to traditional mechanical solutions.

The attenuator is fully bi-directional and transparent to the full wavelength range of the installed fiber.

When several input fibers are required, the number or variable attenuators can be multiplied up to 8 in a single 19" rack.

TECHNICAL SPECIFICATIONS

	Unit	Min	Typ	Max
Variable Optical Attenuator				
Wavelength Range ¹	nm	1240		1650
Insertion Loss ²	dB		0.7	1.5
Return Loss ³	dB		55	50
Attenuation Range	dB	30		
Polarisation Dependent Loss at 10 dB	dB		0.1	0.15
Polarisation Dependent Loss at 10 dB	dB		0.15	0.25
Repeatability ⁴	dB		5%	
Response Time ⁵	ms		5	
Fiber Pigtail	µm	SMF 28 or MM 50/125, 62/125		
Durability	cycles	no wear out		
Package				
Power Supply Voltage	V	48V DC or 110-230 AC		
Power Consumption	W	20 W		
Control interface		Ethernet		
Operation Temperature	°C	0		70
Storage Temperature	°C	-40		85
Size (W x H x L) (up to 2x16)	mm	484x45x280		
Size (W x H x L) (1x17 to 2x32)	mm	484x90x280		
Size (W x H x L) (1x33 to 2x48)	mm	484x135x280		

¹ for multimode 700 – 1700 nm

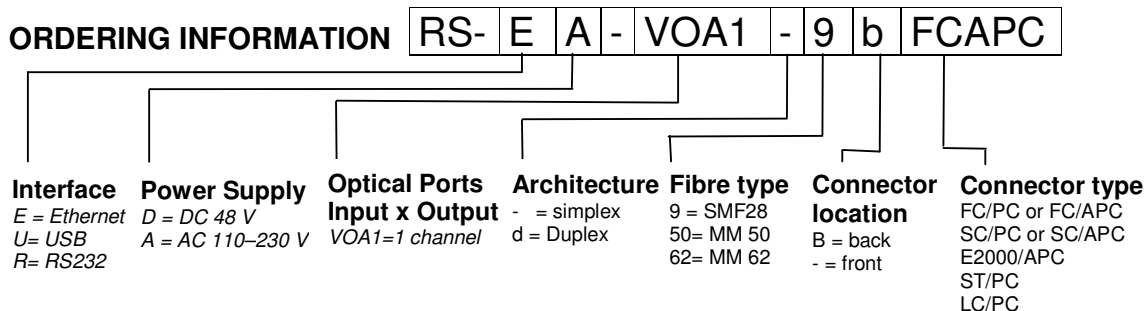
² including connectors

³ value for single mode fiber (SMF) when using angle polished connectors; for MM fiber RL > 35 dB.

⁴ value for constant wavelength, temperature and polarisation

⁵ value for Single Mode, for multimode: 20 ms

ORDERING INFORMATION



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